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10/552,740	10/12/2005	Kazuhiko Ueda	Q90372	2490
23373	7590	08/20/2007	EXAMINER	
SUGHRUE MION, PLLC			ZIMMER, MARC S	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
			ART UNIT	PAPER NUMBER
			1712	
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			08/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/552,740

Applicant(s)

UEDA ET AL.

Examiner

Marc S. Zimmer

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 1-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/12/05, 06/21/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### ***Claim Objections***

Claims 1-6 are objected to because Applicant discloses a silicon group-containing acrylic polymer in terms of the monomers from which it is derived but, in the case where (A) corresponds to a "monomer having a functional group capable of undergoing introduction of a hydrolyzable silyl group", the resulting polymer is one containing that functional group but no silyl group. For the purpose of evaluating the claims against the prior art, the Examiner has assumed that (A) can only be a monomer containing a silyl group.

Applicant is advised that, were they to overcome the objection in a manner that makes it appropriate to leave the other permutation of (A) in the claim, the Examiner would then be inclined to make an election of species requirement.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiyohara et al., U.S. Patent Application Publication No. 2002/0045683. See Table 1 on page 8, entries 2 and 3.

It shall be first noted that whereas Applicants claims stipulate that the total amount of parts of components (A) to (D) is 50 to 100 parts, the corresponding monomers in, for instance, reference Example 3, total  $75 + 129 + 160 + 10 = 374$  parts. Ultimately, the Examiner believes the only factor of any importance in Applicant's claims is that the relative quantities of (A), (B), (C), and (D) are satisfied. Indeed, it would otherwise make no sense to allow 3 of the 4 essential monomer materials to be individually made available in quantities of up to 95 parts but wherein the total is still 100 parts (or less). The Examiner views the individual quantities recited by Applicant's claims more as percentages than parts.

Reference Example 3 discloses a monomer mixture wherein the material corresponding to (A) is added in an amount translating to .0236 ( $10/374$ ) weight percent, the other monomers being added in quantities of between 20% and 42% of the total. The other monomers contemplated, e.g. styrene, have a combined weight of considerably less than 50% of the total weight of the monomers corresponding to (A) through (D).

At the bottom of the table, it is stated that a number-average molecular weight could not be obtained for this polymer using GPC. However, given that the other examples for which a molecular weight is reported use similar total quantities of monomer and initiator, it is the Examiner's position that the molecular weight limitation of claim 1 would be inherently satisfied.

Concerning claims 3 and 5, the phrase, "which is a modifier for a hydrolyzable..." is nothing more than a recitation of intended use. Section 2112.02 of the MPEP provides direction as to how phrases such as this are to be treated:

"If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim).

Insofar as the aforementioned phrase is to be assessed no patentable weight, claims 3 and 5 effectively have the same scope as claims 1 and 2 which stand rejected for the reasons cited *supra*.

#### ***Allowable Subject Matter***

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if (i) rewritten in independent form including all of the limitations of

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the base claim and any intervening claims, (ii) the claim objection stated herein were suitably addressed.

The prior art is replete with references that resemble in some manner the copolymers of instant invention. On the other hand, there are a significantly smaller number of references disclosing polymers having all four types of monomer unit. Shimada et al., U.S. Patent Application Publication No. 202/0146573, U.S. Patent Application Publication No. 2002/0051889, and U.S. patent # 6,914,110 all teach similarly-constituted polymers featuring all four of the mandated types of repeat unit. See paragraph 301, 275, and column 45 respectively. In each instance however, the amount of the silane-functional monomer is higher than what is prescribed by the claims and there was no apparent reason why one of ordinary skill would have been motivated to prepare similar polymers having smaller quantities of this monomer component. (In at least one instance, the limitation governing the amounts of butyl (meth)acrylate and the (meth)acrylate monomer containing 7 to 9 carbon atoms in the alkyl group also was not satisfied.)

U.S. Patent # 7,144,953 is cited as being of interest for its description of a composition differing only in that the acrylic component is devoid of units derived from butyl(meth)acrylate. U.S. Patent # 6,350,345 teaches another similar composition but there is nothing leading one to a copolymer derived from all of butyl (meth)acrylate, a (meth)acrylate compound wherein the alkyl group has 7 to 9 carbon atoms, and methyl (meth)acrylate. Even if it could be asserted that a copolymer having each of these


monomer materials incorporated therein were obvious, the limitation outlining the relative amounts of the first two is certainly not rendered obvious.

There are innumerable references disclosing copolymers having 3 of the 4 required monomer components, there being no clear motivation to incorporate the monomer claimed but not disclosed in each of those cases.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
MARC S. ZIMMER  
PRIMARY EXAMINER